

Illinois Environmental Protection Agency
Bureau of Water - Division of Public Water Supplies
Inspection Report - Elgin Regional Office

FACILITY NAME MC	lenry Shores Wa	ter Company	FAC	ILITY: NUMBER	111	-5020	
PLANT PHONE	1-815-653-2	961		COUNTY	Mci	Henry	
INSPECTION DATE	May 30, 20	00		NSPECTED BY	Chris Johnston	and Manny Abad	
SEND CORRE	SPONDENCE TO		Ę)	(EMPTION / LAB	ORATORY FEE S	STATUS	
NAME OR ENTIT	Y Mr. Thomas P. M	athews		CHLORINE (Date)	Not exemp	ot.	
ADDRES	s P.O. Box 18	39 C	ERTIFIED O	PERATOR (Date)	Not exemp	ot.	
CITY, STATE, ZI	P Wonder Lake, IL	60097	LAB FEE PA	RTICIPANT (Y/N)	No.		
		CONTACT	NFORMA	TION			
CERTIFIED OPERATOR	Mr. Thomas P. M	athews	CLASS	"C"	NUMBER	. 00956	
PHONE	1-815-653-29	961 .	. FAX:	1-815-6	53-2081		
PORTABLE PHONE	1-815-482-14	401	OTHER	Home:	1-815-653-7171		
OWNER - RESPONSIBLE PERSONNEL	Mr. Thomas P. Ma	athews	7,137)	.E OR POSITION	President		
PHON	1-815-653-29	200 CC 1800 CC 1800	FAX	1-815-6	53-2081		
į	NAME		ITLE OR PO		P	HONE	
OTHER CONTACTS	Mr. Jeff Clau		Vice Pres		1-815-	653-2961	
	Mrs. Evelyn Ra	ske	Office Mar	nager	1-815	-653-2961	
HOME PAGE ADDRESS				None.			
Gritical	Restricted		Y STATU:				
Open Review	A Status	Reason		ow system press	ure	Date 09/17/1992	
		CONNECTIONS		540		#METERS	
		OUTSIDE CORPORA		518		518	
	DIRECT SERVICES	Residential		0		0	
				518		518	
		Commercial		0		0	
SATELLITE WAT	ER SYSTEMS / INTE		Customers	0 FACILITY NU		0 urce? Customer?	
None.		en e		N/A	**************************************	V/A N/A	
		ADEQUACY	OF SUP			<u> </u>	
DATE RANGE	FROM Jan. 19	999 TO Dec. 1	1999 PLA	NT CAPACITY (MGD)	0.5227	2 MGD	
		LIMITING F	ACTOR FO	R PLANT CAPACITY?	Combined capa well #2.	cities of well #1 and	
ANNUAL PUMPAGE	(MG) R/	W ?		FINISHED	56.870	3 MG	
AVERAGE DAILY		W ?		FINISHED	0.1556	18 MGD	
MAX 7 Day Average		AW ?		FINISHED	0.289 i		
Historical MAX 7-Day Average (. ?		FINISHED	*****		
FOEGO	ATION 1,813	Howan		ated or Census Data Population Figured?	888888		
AVERAGE DAILY PER CAP USAGE:	ITA 86 gpppd			rage Daily (Finished)			
	1981 (1981 1981 1981 1981 1981 1981 1981 1981 1981 1981 1981 1981 1981 1981 1981 1982 1983 1984 1984 1984 1984 1984 1984 1984 1984 1984 1984 1984 1984 1984 1984	Time to Produc	a MAX 7- Da	y Average (Finished)	13	3.3 hours	

BRIEF DESCRIPTION OF SYSTEM AND SERVICE AREA

The McHenry Shores Water Company (111-5020) is located in east-central McHenry County, on the southeast side of McHenry (111-0600), and west of the Fox River. The subdivision was started in the mid-1950's and was originally incorporated as the Village of McHenry Shores. In the early 1970's Mr. Mathews bought the McHenry Shores Water Company from the original developer. The City of McHenry annexed the Village of McHenry Shores in the early 1980's. The Public Water Supply consists of two shallow wells, and one pressure system. The facility has two active TAP's (TAP's 02 and 03), which are located in one wellhouse. TAP 01/Well #1 (ID 20150) was properly abandoned on November 5, 1998 due to low production.

TAP 02 receives water from well #2, which operates automatically and supplements the production of well #3. Well #2 (ID 20151, rated 143 gpm @ unknown head) was drilled to a depth of 135 feet, tapping a sand and gravel aquifer. The raw water is disinfected with sodium hypochlorite (12.5% diluted 50%) before combining with water with well #3, and flowing to the distribution system. Well #2 has an iron concentration of 0.82 mg/L, a manganese concentration of 0.02 mg/L, a hardness concentration of 223 mg/L as CaCO³, and a natural fluoride concentration of 0.74 mg/L. The production of well #2 has gone down. Prior to the construction of well #3, this resulted in overpumping, entrained air, "cloudy water" complaints, and low pressure complaints. Well #2 has a history of total coliform and non-coliform detections.

TAP 03 receives water from well #3, the "primary" well. Well #3 (ID 01145, rated 220 gpm @ unknown head) was drilled to a depth of 205 feet, tapping a sand and gravel, and dolomite aquifer. The raw water is treated with polyphosphate (WSU 319 diluted 50%) for iron sequestration, supplementally fluoridated with hydrofluosilicic acid (23% diluted to a 2.3% solution), and disinfected with sodium hypochlorite (12.5% diluted 50%) before passing through a 10,000 gallon hydropneumatic tank, combining with water from well #2, and passing to the distribution system. The hydropneumatic tank is only used as a control vessel for the automatic pressure switch and is not used for storage. Well #3 has an iron concentration of 1.0 mg/L, a manganese concentration of 0.0 mg/L, and a natural fluoride concentration of 0.7 mg/L. Well #3 was installed with IEPA emergency construction permit 2196-FY1995. As-built plans were required, but project review letter information was not submitted, and the as-built permit was denied on April 12, 1996. Well #3 has a history of total coliform and non-coliform detections.

The supply has had a history of late sample results, not maintaining proper fluoride residuals, not maintaining chlorine residuals, and numerous complaints for not issuing boil-orders, water shut-offs without notice, rusty water, black water, water with strange odors, cloudy water, and low pressure. The facility is under enforcement, and is on critical review status for low system pressure. Hydrant tests by the ICC show flow pressures below 20 psi at some locations. The supply has "flush valves," or gate valves which when opened discharge water directly below ground (the main behind the valve is not capped). Along the Fox River, a main discharges constantly to flush the system. Storage consists of a 100,000 gallon elevated tank. The distribution system consists of 23,178 feet of 4-inch asbestos-cement (transite) main, 12,604 feet of 6-inch PVC and asbestos-cement main, and 510 feet of 8-inch PVC main. There is a reported 60 feet of elevation difference between the high and low portions of the distribution system. No dedicated emergency power is provided for the supply. The facility does not have any system alarms. The community is served by sanitary sewers. There are six lots remaining which could be served by the supply. A free chlorine residual of 0.2 mg/L was measured in the distribution system on the day of inspection.

			TREA	TMENT /	APPLICA	TION PO	NT SUMI	MARY				
TAP#	Location or Description	Source Name	Source ID	Status (A, I or X)	Well Depth	Casing Length	Aquifer	Current Production (GPM)	GWUDI Eval. (DATE)	Wai VOC	vers SOC	
02	Well #2 at base of 0.1 MG elevated tank in wellhouse at 1007 S. Hilltop	Well #2	20151	A .	135 feet	124 feet	Sand & Gravel	143 gpm @	Never submitted information	Never Applied	Never Applied	
(Disco	Source Use nnected sources, ps, seasonal use, etc)		ne of two so utomatically		ater. Well a	#2 supplem	ents the pro	oduction o	f well #3, and	d operates		
	riological History water samples)		o raw water on-coliform			12 months;	however, w	vell #2 has	had a histor	y of total co	oliform and	
		Disinfect	tant Used		in Chemical sed	Other Chem	ical Additlon		Well Inorgan	nc Statistics:		
			ypochlorite luted 50%)	. No	one.	No	ne.	Mang Hardr pH:	conc.: anese conc. ness as CaC al Fluoride c	0.01 O ₃ : 22	9 mg/L 6 mg/L 3 mg/L 7.06 '4 mg/L	
	ğ			ncifellation	Deficiencies				General Con	lition of Plan		
Ti	REATMENT	1.	smo or o cas	raw water oth-nosed, ther means ng for well casing ven	Fair.							
		2			auxiliary pov		-					
		3.	. The prot	chlorine da ective curb	ay tank doe ing nor con	s not have : tainment.	a					
		4.	. The	phosphate chlorine re	solution m	ay not have	a 10 mg/L	-				
	her Comments earding this TAP	re w lo	he production of the productio	verpumping aints. Prio	, entrained r to the con:	air, and "clostruction of	oudy well #3,	Emerge	ncy Power	supply rep portable g but no	cated. The ortedly has enerators, system	

			TREA	TMENT	APPLICA	TION POI	NT SUM	MARY						
TAP	Location or	Source	Source ID	Status (A. I or X)	Well Depth	Casing Length	Aquifer	Current Production	GWUDI Eval. (DATE)		livers			
03	Well #3 adjacent to and east of wellhouse at 1007 South Hilltop Drive	Name Well #3	01145	A.	205 feet	*144 feet	Sand & Gravel, and dolomite	(GPM) 220 gpm @ unknown head and 20 Hp	Constructed after program	Never Applied	Never Applied			
	Source Use onnected sources, ups, seasonal use, etc)	"F	Primary well	," or main s	source of wa	ater for the	supply.							
	eriological History w water samples)		o raw water on-coliform			12 months;	however, v	vell #3 has	had a history	of total co	oliform and			
		Disinfec	tant Used	The state of the s	on Chemical sed	Other Chem	ical Addition		Well Inorganic	Statistics:				
	Sodium hypochlorite (12.5% diluted 50%) Hydrofluosilicic acid (23% diluted to a 2.3% solution) Hydrofluosilicic acid (319 diluted 50%) Manganese Hardness as pH: Natural Fluor									0 O ₃ : 201 Unki	mg/L mg/L mg/L nowл mg/L			
			finstallation Deficiencies General Condition of Plant 1. The fluoride, phosphate, and chlorine day tanks Fair.											
	TREATMENT		do r		otective cur		uay tariks	. '		÷ 1				
		3	. Wel		auxiliary pov not have an iter levels.		her means							
		4		phosphate chlorine re	solution mesidual.	ay not have	a 10 mg/L							
		5	i. Wel	l #3 has no	nt received a	an as-built p	ermit.							
		6		10,000 ga have bypa	llon hydropi ss piping.	neumatic ta	nk does			• :				
	Other Comments egarding this TAP	h s g f (f	The well is on the set of the set	galvanized creen from nch galvan s/s 20 slot rel), and 3-i eet. Below The well wa FY1995. A w letter info	I casing from the second secon	n 0 to 98 fer 08 feet (san from 108 fer 124 feet to zed casing e well is oped with emes were reques not submit	et, a cook ad & eet to 124 134 feet from 134 en ergency sired, but itted, and	Emerge	ency Power	The report port	edicated. supply edly has table ors, but no n alarms.			

	S 15355 100 100 100 100 100 100 100 100 100 1					Selvic	<u> Ağı deştiyetir</u>	<u> </u>			Distribu			n	(Miles		
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	Ent	ire dist	ributi	on syste	m.			1,813		<u>- 18</u>	518		bowl 100	G. The Base of is reported to be feet. The tank rted to be 130 high.	e at	The supply has a 10,000 gallon hydropneumatic tank at TAP 03; however, the tank is only used as a control vessel for the automatic pressure switch and is not used for storage.	
Ma	aximum Pres:		m	L	ocatio	n.	Mi		n Systei ssure	m	Lo	catio	on	Free Chlor Residual (n		Location	
	75 _l	psi		Gre	rsectio egg & E ley Roa	Bull	<u> </u>	CC 343 4380	psi		100' Hillto		outh 0.2 mg/L Blvd.			Distribution	
	Flush	ing Pro	gram			re ection ded?	Curi Ma Availa	I P	Valve	e Main	lenance	Pro	gram	Notes an	d Other Observations		
None	Yearly	∡x year	Mor	e Often	No	Yes	No	Yes	No V	alves	No Progr	am	ok	X The distribution s 23,178 feet of 4-ine (transite) main, 12 PVC and asbestos 510 feet of 8-inc supply has "flush va which when open directly below grou the valve is not co reported 60 feet of between the high the distribution sys River, a main disch flush the system (s Some hydrants do valves. There are			
																604 feet of 6-inch cement main, and PVC main. The ves," or gate valves d discharge water d (the main behind pped). There is a elevation difference and low portions of em. Along the Fox arges constantly to be Attachment A). not have auxiliary ix lots remaining in opment.	
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	19	 	+			Broad		_		2 psi) psi		550 gpm	
	20			Capri -	<u> </u>		 -	`		7 psi	-		10 psi			560 gpm	
-	16					Hunte		_	-	5 psi			15 psi			600 gpm	
	14 7					3 Vista				2 psi			15 psi 15 psi			710 gpm	
				Still Hill		Vista T		 - -	.	2 psi · 2 psi					_	710 gpm	
	9			Still Hill	Dr. &					2 psi 0 psi		12 psi 8 psi		-	420 gpm 480 gpm		
1	6 Riverside Dr. & M			- 0 AAH	iller Dr. 67 psi				+	8 psi				480 gpm			

							Oj	perati	ng Re	ports	/ Record	ís.					
										Conten	t of Monthl	y Reports					
Monthly R Sub	Reports		Repo each		Prodi from	ally uction Each ell?	Da Meas Residi	ured		Dosage Jations?			Notes	and Other Obse	rvations		
Yes	No	Late	Yes	No	Yes	No	Yes	No	Yes	No							
		*X	Х	ereriter/Traker	Х		Х	<u> </u>	Х		*D	aily opera	iting re	p orts are sen	t one time	per yea	<u></u>
			From	Carrana		rol Ordin		<u> </u>]]						•	٠	
Does II system h	ave	Date Ar	oproved	Prog	ram ced?	84080.1881.4	vate Wel	ls Exist Area?	in the S								
in ordina Yes	ince? No	(by i		Yes	No	Y	es I		No		•				÷		
х		11/18	/1994	Х		>	<						-	-			
									Mon	itoring	1						
						* (*		Bac	teriolog	ical Sun	nmary	1					
		Monit	toring His	story (La aw		onths) shed	Distrib	skefterer]	Primary.	Lab -	Ph	one	, ,	FAX		
Number	r of Sa	mples		4	2000000000000))	24	09094.0.8		McHer Analyti		1-815-3	44-404	1-815-	344-2208		
Number	Satis	factory	2	4	1	0	24	4		898 8 2 08 8 3 3 8 3 8 5							
Numb	ber inv	zalīd	()	. (0	C)	- S	econdar	y Lab	Ph	one		-AX		
Number (Unsali	sfactory	()	(0	С)		Non	е	N	I/A	1	V/A		
	I/E. (()		0	C)	Coir P)	form Mo an Appr	onitoring oved?	All Major system i Pl		t_uniorine	Residuals ample Sites?	Monito FRI Resid	E
									Ŷ	es	No	Yes	No	Yes	No	Yes	N
Monitori	ng Vic	dations)	MCEV	iolations	C	Parantana		X		X		X	1	<u> </u>	>
TAP I	No	ı of	Mini	mum	May	imum		3 3 3 3	n Summ		st 12 mont		1				
No		nples	a francisco escentro	g/l)	4	g/l}	Aver	∌ge		Violatio	ns (list mo	nths)		Notes and Obsi	ervations (Flu	oridation)	198
Dist.	1	12	0.74	mg/L	1.85	mg/L	1.10 ו	mg/L		99, Au	1999, Se gust 199 pril 1999		able requi	supply has ha to maintain t ired range. T esults show a of 0	he fluoride he lab ver	dose in	the
02		?		?	-	?	?)			?			Could no	ot find resu	lts.	
03		?	•	?		?	?)			?			Could no	ot find resu	lts.	
							Viat	ility /	Finan	icial M	lanagem	rent					
Service F	Fee (M	linimum (Charge)			\$6.00	per mor	nth		ource(s er syste		e used to me	intain		None		
Direct Ch	nerge I	cost per	1,000 ga	llons)		\$	1.93	•		es the u ay wate		le customers	w ho	Overdue no visit for colle			
Billing Fr	requen	cy				Bi÷n	nonthly		Does th repairs		have a fur	ad to cover n	ajor		. No	-	
ICC Reg	ulated	? (YIN)					Yes			and phoi tem repa		erson respo	nsible		T.P. Math 815-653-29		
Date of L	Last R	ale Incre:	ase			Jun	e 1999			`a.							15 9
		7 (7)			1									•			

PWS Basic Facility Characteristics Change Form

Facility Number: 111-5020 Facility Name: McHenry Shores Water Company

Effective Date: ASAP

Current Record		Change To
	No. of Service Connections	518
	Population Served*	1,813
	Coliform Samples (RAW)	2 Well #2 - ID 20151 Well #3 - ID 01145
	Coliform Samples (FINISHED)	0
	Coliform Samples (Distribution)	2
	No. of Fluoride Bottles to be sent☆	0.
	List TAP No(s) to be monitored for Fluoride	TAP 02 TAP 03
	No. of Coliform Bottles to be Sent	4
	Bottle Recipient Address	McHenry Shores Water Company P.O. Box 189 7314 Hancock Drive Wonder Lake, IL 60097

- * Basis of Population and/or Service Connection Change (i.e., 100 homes X 3 People):
- ☆ Complete only if Participant in Lab Fee program and Supply Requests use of IEPA laboratory for analysis.
- Address must be useable for both US Mail and UPS delivery. If Necessary, List Both.

DATE: June 10, 2000

IEPA Personnel: Chris Johnston and Manny Abad

Mail completed form to Marilyn Turner, IEPA/BOW/CAS/#19, Springfield, IL 62794-9276

FYI - Answers to Commonly Asked Questions

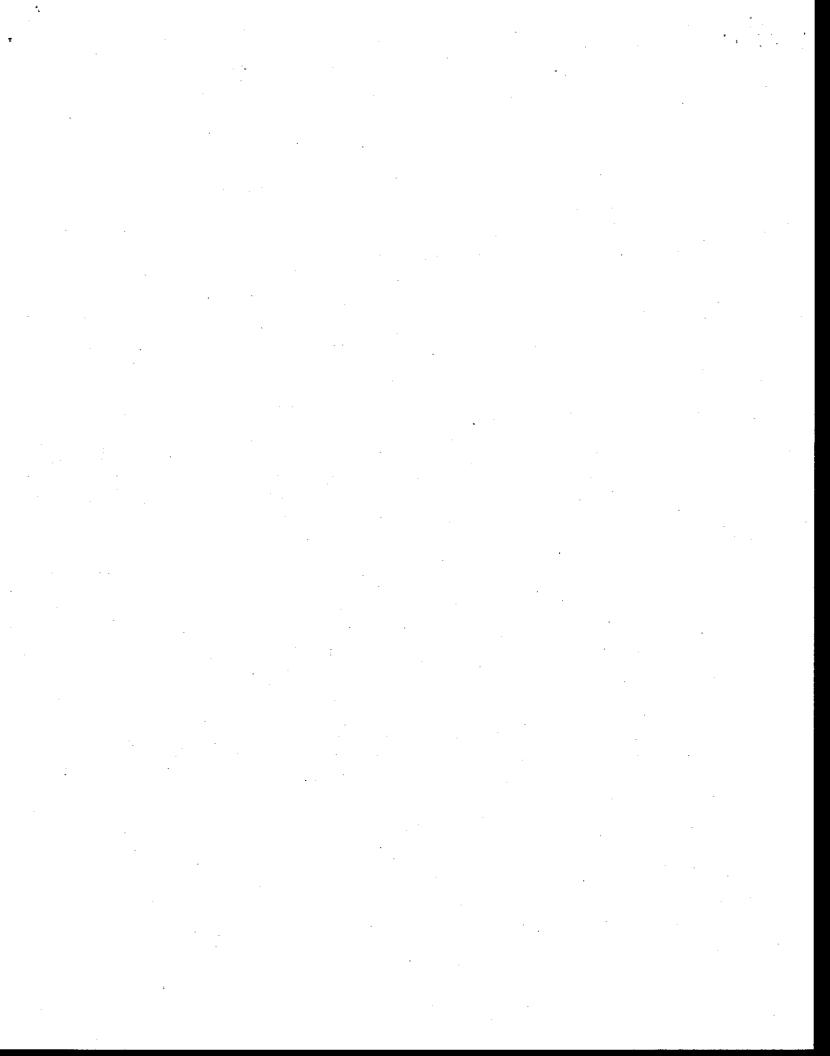
The number of distribution samples required is determined by the population served by the water system (35 IL. Adm. Code 611, Table A). Additional distribution samples may be required by IEPA to accommodate separate distribution systems.

Raw samples are required for systems that add a disinfectant, since problems with the wells or treatment processes may not be detected by distribution samples.

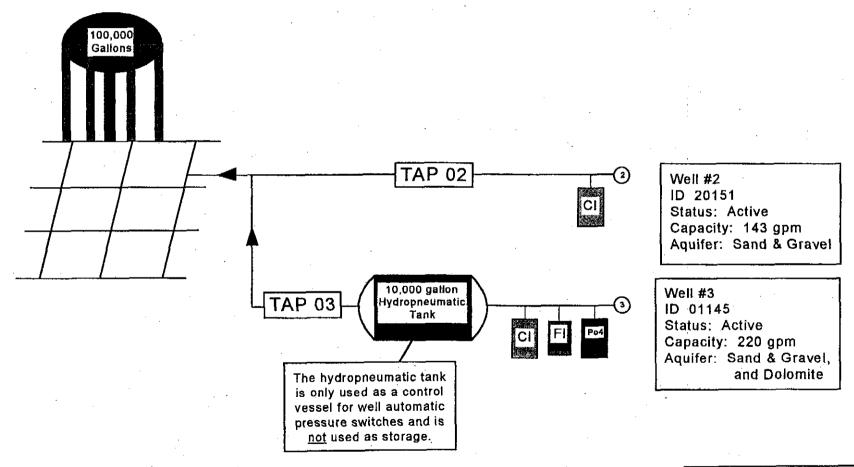
Backup wells that are not in routine use should be monitored quarterly. If an unmonitored well must be used, a boil order must be issued.

Water samples that are invalidated by the laboratory cannot be used for compliance. Invalid water samples must be replaced to avoid a monitoring violation.

REPEAT sampling must be provided for ALL distribution samples found to contain coliform bacteria. Repeat sampling consists of three additional samples. One of the three samples should be taken from the location giving the original positive result. A second sample must be collected from an UPSTREAM location that is within 5 service connections, and the third sample taken from a DOWNSTREAM location, that is also within 5 service connections of the original sample point. If repeat samples are not collected, IEPA must "credit" the water system with three additional positive results.



McHenry Shores Water Company McHenry County - 111-5020



Colors in accordance with Recommended Standards for Water Works, Section 2.14



Illinois Environmental Protection Agency Bureau of Water - Division of Public Water Supplies Inspection Report - Elgin Regional Office

Exhibit MLJ-7

FACILITY NAME	Won	der Lake Wate	er Comp	any	FACIL	ITY NUMBER	111-5750			
PLANT PHONE		1-815-653-2	961			COUNTY	McHe	nry		
NSPECTION DATE		May 30, 20	000		IN	SPECTED BY:	Chris Johnston and Manny Abad			
SEND	ORRES	ONDENCE TO			EX	EMPTION / LA	BORATORY FEE ST	ATUS		
NAME OF	RENTITY	Mr. Thomas P.	Mathews		c	HLORINE (Dafe)	Not exempt.			
4	DDRESS	7314 Hancoc	k Drive		CERTIFIED OF	PERATOR (Date)	Not exempt.			
CITY, ST	IATE, ZIP	Wonder Lake, 60097			LAB FEE PAI	RTICIPANT (Y/N)	No			
			co	NTAC	TINFORMAT	ION				
CERTIFIED OPER	ATOR	Mr. Thomas P.	Mathews		CLASS	"C"	NUMBER	00956		
	PHONE	1-815-653-	2961	2	FAX	1-815	653-2081			
PORTABLI	E PHONE:	1-815-482-	-1401		OTHER	Home	: 1-815-653-717.1			
OWNER - RESPON PERSONNEL		Mr. Thomas P.	Mathews		TIT	LE OR POSITION	President			
	PHONE	1-815-653-	2961		FAX:	1-815	-653-2081			
		NAME		81. F. I	TITLE OR PO	SITION	PHO	ONE		
OTHER CONTA	CTS	Mr. Jeff Cl	aus		Vice Pres	ident	1-815-6	53-2961		
		Mrs. Evelyn	Raske		Office Mar	nager	1-815-6	53-2961		
HOME PAGE ADD	RESS			÷ .	and the contract of the second	None.	men and the same and the same and			
				FACI	LITY STATU	S				
Open	Critical Review	Restricted Status	X	eason	Inadequate	hydropneumati	c storage capacity	Date 06/16/199		

DATE RANGE	FROM Jan. 99	TO Dec. 99	PLANT CAPACITY (MGD)	0.7056 MGD
•		LIMITING	FACTOR FOR PLANT CAPACITY?	Combined capacities of well #1, well #3, and Wonder Lake (111-5750) well #1
ANNUAL PUMPAGE (MG)	RA'	?	FINISHED	78.15235 MG
AVERAGE DAILY (MGD)	RA'	ν ?	FINISHED	0.214235 MGD
MAX 7 Day Average (MGD)	RA	W 7	FINISHED	0.356829 MGD
Historical MAX 7-Day Average (MGD)	RA	W. ?	FINISHED	0.356829 MGD
POPULATION	HS: 2,244 WL: 1,442 Total: 3,686		Estimated or Census Data	Estimated
		How	was Estimated Population Figured?	3.5 people per connection
AVERAGE DAILY PER CAPITA USAGE:	58 gpppd (low	r) Time	to Produce Average Daily (Finished)	7.3 hours
		Time to Prod	luce MAX 7- Day Average (Finished)	12.1 hours

SERVICE CONNECTIONS		# METERS
NUMBER OF DIRECT SERVICES	412	412
DIRECT SERVICES OUTSIDE CORPORATE LIMITS	0	0
Residential Customers	412	412
Commercial Customers	0	. 0
Industrial Customers	0	0
SATELLITE WATER SYSTEMS / INTERCONNECTIONS	FACILITY NUMBER	Source? Customer?
Highland Shores Water Company (TAP 04)	111-5300	х х

The Wonder Lake Water Company (111-5750) is located in north-central McHenry County, on the southwest side of Wonder Lake. The Public Water Supply consists of one shallow well, one open interconnection with the Highland Shores Water Company (111-5300), and one pressure system. The facility has two active TAP's (TAP's 01 and 02).

TAP 01 receives water from well #1. Well #1 (ID 20149, rated 210 gpm @ unknown head) was drilled to a depth of 180 feet, tapping a sand and gravel aquifer. The raw water is treated with polyphosphate (WSU 319 diluted 50%) for iron and manganese sequestration, supplementally fluoridated with hydrofluosilicic acid (23% diluted to a 2.3% solution), and disinfected with sodium hypochlorite (12.5% diluted 50%), before passing to the distribution system. At the time of inspection, the fluoride feed was disconnected. Well #1 has an iron concentration of 0.05 mg/L (although on 10/28/1999 the raw water had an iron concentration of 1.04 mg/L), a manganese concentration of 0.12 mg/L, a hardness concentration of 329 mg/L as CaCO³, and a natural fluoride concentration of 0.22 mg/L. TAP 01 supplements the production of TAP 02. Well #1 has a history of colony growth which has generated invalid samples and total coliform detections.

TAP 02 consist a connection to the Highland Shores Water Company (111-5300) through a 6-inch main (the 6-inch main connects to a Highland Shores 4-inch main). The capacity of this connection is unknown. Water has the capability to either flow into the Highland Shores water system, or to the Wonder Lake Water Company; however, the Highland Shores Water Company is located at a higher elevation and under normal operating conditions all water flows from Highland Shores and to Wonder Lake. Due to the open connection, the Highland Shores Water Company and the Wonder Lake Water Company can be considered one water system. Source water for the Highland Shores Water Company consists of two wells with a combined capacity of 280 gpm. Storage for Highland Shores consists of a 45,000 gallon elevated tank. A 14,000 gallon hydropneumatic tank also exists, but no air charge is maintained in the tank (he tank is considered "in-line" storage). Reported disagreement among the residents of the two systems has kept the supplies separate.

The supply has had a history of late sample results, not maintaining proper fluoride residuals, and numerous complaints for not issuing boil-orders, water shut-offs without notice, rusty water, black water, and water with strange odors, and low pressure. The facility is under enforcement, and is on restricted status for inadequate hydropneumatic storage capacity. Storage consists of a 10,000 gallon hydropneumatic tank and a 6,000 gallon hydropneumatic tank. No air charge is maintained in either tank; the tanks are considered "in-line" storage. The distribution system consists of 24,614 of 4-inch and 5,990 feet of 6-inch diameter transite (asbestos cement) main. There is a reported 60 feet of elevation difference between the high and low points of the distribution system. Hydrant tests by the ICC show flow pressures below 20 psi at some locations. The supply has "flush valves," or gate valves which when opened discharge water directly below ground (the main behind the valve is not capped). No dedicated emergency power is provided for the supply, and the facility does not have any system alarms. The community is served by septic systems. A letter from November 1989 states a furniture stripping business on East Wonder Lake Road was using "methylene chloride" to strip furniture. Supposedly, a former cement pit was utilized to dip the furniture in, and the waste solvent went into a dry well. The facility does not have a history of VOC detections. In the early 1980's the area had a Campylobacter outbreak. At the same time, a water main break occurred at the facility. A direct correlation between the outbreak and the water main break could not be established. A free chlorine residual of 0.1 mg/L was measured in the distribution system on the day of inspection.

			TREA	TMENT A	APPLICA	TION PO	NT SUN	IMARY			
TAP#	Location or Description	Source Name	Source ID	Statús (A, I or X)	Well Depth	Casing Length	Aquifer	Current Production (GPM)	GWUDI Eval. (DATE)	Wal VQC	vers SOC
01	Well #1, 14,000 gallon and 6,000 gallon hydro- pneumatic tanks at 8519 Alden Road.	Well #1	20149	A	180 feet	170 feet	Sand & Gravel	210 gpm @ unknown head and 20 Hp	Never submitted information	Expires 12-31- 2001	Expires 12-31-2001
(Disco	Source Use nnected sources, pè, sessonal use, etc)	S	upplements	the produc	ction of TAP	02.					
	riological History (water samples)	i v	Vell #1 and I	the distribut		have a hist			es membrane which has ge		
		Disinfec	tant Used	200 200 20	n Chemical sed	1	hemical tion		Well Inorgan	ic Statistics:	
			ypochlorite luted 50%)	(23% dil	esilicic acid luted to a solution)	Polypho (WSU 31 50		Iron conc.; on 10/28/1	as CaCO₃: uoride conc.:	0.05 M water had a	/L g/L g/L -
				Installation	Deficiencies				General Cond	lition of Plant	
ŦI	REATMENT	e n p d n	enough down not have a moressure gau lownturned, neasure wat	nstream for naster mete uge, the cas well #1 do ter levels, a sing (where	of well #1 is accurate re r, well #1 do sing vent for es not have and the ann e wires enter	eadings, we bes not hav well #1 is provisions ular openin	ell #1 does e a not to g at the		air.		
		2. T	he fluoride, lave protect	phosphate ive curbing	, and chlori s nor contai	ne day tank nment.	s do not				. •
		3. T	he 10,000 g and does no	gallon hydro t have a sig	opneumatic iht glass.	tank is belo	ow grade				
		d d	loes not hav loes not hav nanual or au	re a drain, d re a water s utomatic air	pneumatic to does not have sight glass, of blow-off, do ve a means	ve a pressu does not ha des not hav	re gauge, ive a e bypass				
		5. N	lo dedicated	d auxiliary p	ower.						
			The phospha chlorine resi		may not ha	ve a [.] 10 mg	/L free			,	•
			The chlorine lead-end.	and phosp	hate injectio	on points ar	e at a		•		
	ther Comments jarding this TAP	t	complaints, v reatment is	which indica inadequate	merous red ates the poly the current inadequate	yphosphate t flushing p	·	Emerge	ncy Power	but no	

			TREA	TMENT A	APPLICA"	TION PO	NT SUI	MMARY	ARAN AVANES S		
TAP	Location or Description	Source Name	Source ID	Status (A, I or X)	Well Depth	Casing Length	Aquifer	Current Production (GPM)	GWUDI Eval. (DATE)	Wai VOC	vers SOC
02	Connection to the Highland Shores Water Company at 3513	*Well #1	00595	A	265 feet	255 feet	Sand & gravel	170 gpm @ unknown head and 20 Hp	Never submitted information	Not received	Not received
	Westwood Drive	*Weil #3	20152	A.	220 feet	210 feet	Sand & Gravel	110 gpm @ unknown head and 10 Hp	Never submitted information	Not received	Not received
(Disc	ce Use prinected sources, pulps, seasonal use.	*! V	Due to eleva Vonder Lake	ation difference. Thus the	ences, unde e above two	r normal ci wells are t	rcumstan he main s	ces, water f source of wa	lows from Hig ater for the su	hland Shor pply	es and to
	eriological History water samples)	F	acility is no	t required t	o sample at	this location	on.				
		Disinfed	tant Used	Fluoridation Chemical Other Chemical Addition					Other Tr	eatment	
		No	one.	i W	one.	No	ne.	1	Nor	ne.	•
	TREATMENT			Installation	Deficiencles	General Condition of Plant					
		1	None - unde	erground co	nnection.			į	Inderground o	connection.	<u> </u>
	Other Comments egarding this TAP		Water Comp 6-inch main main). The Water has the Shores wate Company; h Company is normal oper	cony (111-5 connects to capacity of the capabilities system, of nowever, the located at rating conditions	ection to the 5300) through a Highland finis connecty to either for to the Wole Highland sa higher elections all was o Wonder Li	th a 6-inch d.Shores 4- tion is unk ow into the nder Lake Shores Wa evation and er flows fro	main (the inch nown. Highland Water ter under	4	ency Power	No	one.

					1 (1) (1) (1)	Servic	e Area	/ Pres	sure Z	one / [istribution S	ystem			
	W	ater So	ource(s) .	24 11. 118	1	TAP	01 an	d TAP	02					•
- 1	Lo	cation	or Des	cription	n	08 15 502 8 880		vice A			No. of Service Connections 412		hed W	ater Storage (Show Capacities)
							Po	pulation	on:	Co			und	Elevated	Hydropneumatic
5-0	lina Mara	odos I r	ska Die	tributio	n evet	am		1,442					ne	*None	**10,000 gallons
	ntire Wonder Lake Distribution system					3111	1,442				,T12		-		**6,000 gallons
М	axlmum Pres:		m	Ĺ	ocation) }	М		n Syste sure	m	Locatio	n.		e Chlorine dual (mg/l)	Location
	75	psi		West Drive a	Lakes and Do			56	psi		Thompson Acorn Av		0).1 mg/L	Distribution system
	Flushi	Fil shing Program Prote Provi				ction	Current Map Valve N Available?				itenance Prog	ıram	N	otes and Othe	er Observations
None	Yearly	2 x year	More	Often	2 0	Yes	No.	Yes	No V	alves	No Program	ОК			
			Mon	ithly i	X			X				X	wif Com sup charg tanks The s b indica is in prog inad consi fe (asb	th the Highlar hpany. Water ply based on e is maintaine are considere upply has had lack water costes the polyphadequate, the gram is inade equate. The sts of 24,614 set of 6-inch destos cemented 60 feet of een the high a	n open connection of Shores Water can flow to either demand. **No air ed in either tank; the ed "in-line" storage. I numerous red anomplaints, which hosphate treatment e current flushing quate, or both are distribution system of 4-inch and 5,990 illiameter transite is main. There is a elevation difference and low points of the on system.

Hydrant locations with flow pressure below 20 psi - ICC Hydrant Inspection Report for October 1998										
Hydrant Number	Location	Static Pressure	Flow Pressure	Gallons per minute						
18	West Lake Shore Drive & Acorn	83 psi	15 psi	630 gpm						
17	Westwood Drive & Coral Rd.	. 68 psi	15 psi	630 gpm						
16	Near Ridge Rd. & Acom Path	57 psi	12 psi	630 gpm						
15	Between Adlen & Coral on Greenwood Drive	87 psi	15 psi	580 gpm						
14	Between Alden & Dorr on Woodstock St.	92 psi	17 psi	770 gpm						
10	Between Burton & Dorr on Greenwood Drive	87 psi	12 psi	730 gpm						
9	West Lake Shore Dr. & Nunda Rd.	95 psi	15 psi	730 gpm						
6	Riley Road	88 psi	17 psi	760 gpm						
4	Between Garrison Rd. & Greenwood Dr. on West Lake Shore Dr.	92 psi	16 psi	630 gpm						

				1 a 1 a 1 a 1 a 1 2 a 1 a 1	0	peratir	ng Repo	rts /	Record	S		48	14.5 14.5 14.5			.38r
							Co	ntent	of Monthly	Reports.		. 187			4	
Monthly Reports Being Submitted?		Report for each TAP?	Daily Production from Each Well?	duction Measu			ally Dosage alculations?		Notes a			ind Other Observations				
(98)	No	Late	Yes No	Yes No	Yes	No	Yes 1	10							si ga sa	
-		*X	X	X	Х		Х		*Da	aily operat	ing repo	rts are s	sent	one time p	er ye:	ar.
			Cross Conne	ction control Ordin	ance		e de la companya de La companya de la co							•	•	
Does system in ordina	have	Date Ap	proved Enf	ogram Do Pr orced?	ivate We	ells Exist Area?	in the Serv	rice								
Y 66	No		Yes	No Y	es	1.00	No.						-			
<u> </u>		11/18	/1994 X			<u> </u>	X				de look oo rooms	Suvanous Por	- 5.7			2000000
					7 - 3 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6		Monito									
		4		ant 17 Months)		Bac	cteriologica	l Sum	nmary							
		· MONI	Raw	ast 12 Months) Finished	Distr	bution	Prin	mary !	Lab	Pho	one		F/	ΑX		
Numbe	er of Se	mples	13	0		30		cHer alyti		1-815-3	44-4044	1-8	15-3	44-2208		
Numbe	er Satis	actory	12	0	29			Secondary Lab Phor								
Nurr	Number Invalid		0	0	0 Secondar		y Lab Phone		une	FAX						
Vumber	Number Unsalisfactory 1		. 0		1	None		∍· N/A		N/A		980) 800 Jan	**************************************			
Fecal / E. Coli. Positive		Total Coliform	0	0 Total Coliform	1. Comorti Niciti				ncluded in			Monitoring FREE Residual?				
				. NO. 8 (\$1.7 Period)	<u> </u>	·	Yes	•	No	Yes	No	Ye	· 1910	No	Yes	N
Monito	oring Vic	dations	0	MCL Violations	<u> </u>	0	X		<u> </u>	X	5 \$20,200.50	<u> </u>	(45%	26-16 5 111 3 440	X	<u> ×</u>
TAP I		ı, of	Minimum	Maximum	1	de e	n Summar	-			1000 A				965	
No		nples	(mg/l)	(mg/l)	Av	erage		iolatio	ns (list mo	nths)	1990 A	4000 Bala	7 - 33	rvations (Flui	888yi	- 90 (20)
01	,	12	0.6 mg/L	1.28 mg/L	0.89) 9 mg/L 			The supply has had a history able to maintain the fluoride required range. The lab vers test results show an average of 0.3 mg/L.					dose sus op	in the erate	
02	١	√A į	N/A	N/A		N/A		N/A High				phland Shores (111-5300) receiving point.				
					٧j	ability	Financ	iał N	lanagen	nent						
Service	Fee (N	linûnum	Charge)	\$6.0	D a mo	nth	Other sou the water	urce(s syste	of incom	e used to ma	intein			None ·		
Direct C	Charge	(cost per	1,000 gallons)		\$1.41	٠.	How does fail to pay			le customers	who.			otice, final i elect, turn		
Billing Frequency				Bi-	month	nonthly Does the utility repairs?			y hávé a fund to cover major			No				
ICC Re	gulated	(Y/N)			Yes	٠	Name and phone no. of person responsible Mr. T.P. Mathews for system repairs: 1-815-653-2961									
Date of	l Lest R	ale Incle	380	Ju	ne 199	9								na syeun e biskup Region (Sae Saga		
	ale consideráticos	80624.6838.6.N	900 TES	V 15 5 88850 AVC			-				Treation of a	99880 c	. 42			12

PWS Basic Facility Characteristics Change Form

Facility Number: 111-5750 Facility Name: Wonder Lake Water Company

Effective Date: ASAP

Current Record		Change To .
	No. of Service Connections	412
1 1	Population Served*	1,442
	Coliform Samples (RAW)	1 (Well #1 ID 20149)
	Coliform Samples (FINISHED)	0
;	Coliform Samples (Distribution)	2
i	No. of Fluoride Bottles to be sent☆	None .
	List TAP No(s) to be monitored for Fluoride	TAP 01
	No. of Coliform Bottles to be Sent	3
	Bottle Recipient Address	Wonder Lake Water Company P.O. Box 189 7314 Hancock Drive Wonder Lake, IL 60097

- Basis of Population and/or Service Connection Change (i.e., 100 homes X 3 People):
- Complete only if Participant in Lab Fee program and Supply Requests use of IEPA laboratory for analysis:
- Address must be useable for both US Mail and UPS delivery. If Necessary, List Both.

DATE: June 16, 2000

IEPA Personnel: Chris Johnston and Manny Abad

Mail completed form to Marilyn Turner, IEPA/BOW/CAS/#19, Springfield, IL 62794-9276

FYI - Answers to Commonly Asked Questions

The number of distribution samples required is determined by the population served by the water system (35 IL. Adm. Code 611, Table A). Additional distribution samples may be required by IEPA to accommodate separate distribution systems.

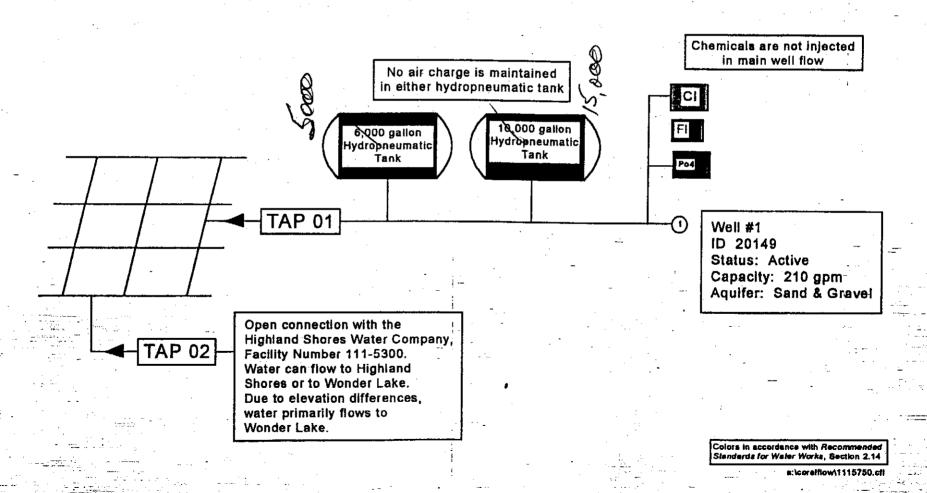
Raw samples are required for systems that add a disinfectant, since problems with the wells or treatment processes may not be detected by distribution samples.

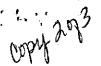
Backup wells that are not in routine use should be monitored quarterly. If an unmonitored well must be used, a boil order must be issued

Water samples that are invalidated by the laboratory cannot be used for compliance. Invalid water samples must be replaced to avoid a monitoring violation.

REPEAT sampling must be provided for ALL distribution samples found to contain coliform bacteria. Repeat sampling consists of three additional samples. One of the three samples should be taken from the location giving the original positive result. A second sample must be collected from an UPSTREAM location that is within 5 service connections, and the third sample taken from a DOWNSTREAM location, that is also within 5 service connections of the original sample point. If repeat samples are not collected, IEPA must "credit" the water system with three additional positive results.

Wonder Lake Water Company McHenry County - 111-5750



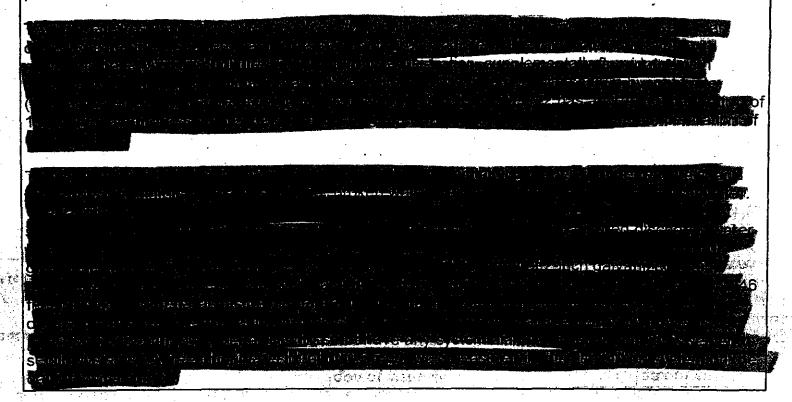


Illinois Environmental Protection Agency
Bureau of Water - Division of Public Water Supplies
Inspection Report - Elgin Regional Office

FACILITY NAME	North	ern Illinois Utilities,	Inc.		TY NUMBER		11-5850			
PLANT PHONE		1-815-653-2961			COUNTY		McHenry			
	-						Chris Johnston and Manny Abad			
INSPECTION DATE	OBBERR	May 30, 2000 ONDENCE TO		11.63%		BORATORY FEI				
	500 210 210 3 500 217 218			1 4 ACC			The Exercise Section 2011 The Property of the			
NAME OR	ENTITY	Mr. Thomas P. Mathews			ILORINE (Date)	Not exe				
AE	DRESS	7314 Hancock Drive	CERTII	FIED OP	RATOR (Date)	Not exe	mpt.			
CITY, STA	ATE, ZIP	Wonder Lake, Illinois 60097	LABF	EE PAR	(Y/N)	No.				
		C	ONTACT INFO	RMATI	ON					
CERTIFIED OPERAT	OR	Mr. Thomas P. Mathews	С	LASS	"C"	NUMBE	00956			
	PHONE	1-815-653-2961		FÁX:	1-815	-653-2081				
PORTABLE	PHONE	1-815-482-1401	от	HER	Home	: 1-815-653-717	'1			
OWNER - RESPONS PERSONNEL	IBLE J	Mr. Thomas P. Mathews		HILE	OR POSITION	Presider	nt .			
•	PHONE	1-815-653-2961		FAX.	1-815	653-2081				
, 1 . j . j	541	NAME	TITLE	OR POSI	TION		PHONE			
OTHER CONTACT	r s	Mr. Jeff Claus	-⊷.Vice	Presid	ent (1)	1-81	5-653-2961			
		Mrs. Evelyn Raske	Offic	e Mana	ger	1.81	5-653-2961			
HOME PAGE ADDR	ESS-	La de la constanta de la const	and David Co	C. U.	None:	· 10 · 10 · 10 · 10 · 10 · 10 · 10 · 10	To the second se			
			FACILITY ST	ATUŞ	t. ind. Asol	10000.70	\$ 2/\$ i3 1 #*			
	ritical eview	Restricted Staffus	teason			ere	Date			
		SERVICE CONN	ECTIONS	(NOTES) 16 (1) (1)			#METERS			
		NUMBER (OF DIRECT SERV	TCES	338	3	338			
		DIRECT SERVICES OUTSIDE	E CORPORATE LI	MITS	0		0			
			Residential Custo	meis	337	,	337			
			Commercial Custo	mers	1		. 1			
			Industrial Custo	mers	0		0			
SATELLITE	WATER	SYSTEMS / INTERCONN	ECTIONS		FACILITY	IUMBER S	ource? Customer?			
None.		÷								
				The state of the s			-			
DATE RANG	SE	FROM Jan. 1999 7		· · · · · · · · · · · · · · · · · · ·	CAPACITY (MC		584 MGD			
			LIMITING FAC	TOR FO	R PLANT CAPAC	Ca	pacity of well #2			
	IMPAGE (MO		, ?		FINIS	IED 24.	573 MG			
	DAILY (MGI		?	? FINISHED			6723 MGD			
MAX 7 Day A			?	7 15 55	Finesi	645 (1776) Value - 1	38571 MGD			
Historical MAX 7-Day A			?		FINISI	of Control	38571 MGD			
	POPULATIO	1,180			lated of Census I	81.000 (1) (1) (1) (1) (1) (1)	imated			
Wenter River	ED CADIT				Population Figu	7/10/1	people per connection			
AVERAGE DAILY PI USAGE:		57 gpppd (low)	Time to Pro	duce Ave	rage Daily (Finis	ned)	10.2 hours			
			Time to Produce N	1AX 7- Da	ıy Average (Finis	ned)	21.0 hours			

BRIEF DESCRIPTION OF SYSTEM AND SERVICE AREA

Northern Illinois Utilities, Inc. is located in north-central McHenry County, on the southeast side of Wonder Lake. The facility consists of two subdivisions, the Oakwood Shore Subdivision and the Wooded Shores Subdivision. The water supplies of each subdivision were combined in the early 1960's when they were purchased by Mr. Mathews. The Public Water Supply consists of one shallow well and one pressure system. The facility has one active TAP (TAP 01). Well #1, which originally served the Wooded Shores Subdivision, was abandoned in August 1996 due to low production.



TAP#	Location or	Source	Source ID	Status	Well Depth	Casing	Aguifer	Current Productio	GWUDI Eval.	i. Waivers		
	Description	Name		(A, I ot X)		Length		n (GPMI)	(DATE)	voc	soc	
01	Well #2 at base of a 75,000 gallon elevated tank, at 7316 Northwood	Well #2	20148		222 feet	215 feet	Sand & Gravel	110 gpm @ unknown head and 20 Hp	Never submitted information	Expires 12-31- 2001	Expires 12-31- 2001	
mes en el construir de	Drive, Wonder Lake				<u> </u>					•		
Disco	Source Use nnected sources, ps, seasonal use, etc)		nly source	of water for	the supply.	·					· 	
	riological History water samples)	N	o raw water		s in the last	12 months.				, ·		
			ant Used	Ų,	on Chemical sed	<u>1. (0.4.18.)</u>	ical Addition		Well Sta	tistics:		
							hate (WSU ted 50%)					
		8880 Ar - 148							al Fluoride c	onc.: 0.67	8.0 mg/L	
		Installation Deficiencies General Condition of Plant										
	e e e e e e e e e e e e e e e e e e e	3	do r con No	iot have pritainment. dedicated a	hosphate, and tective curb substitution of the	oings nor			air			
TI	REATMENT	** - 12名 新名(会 (本語 - 1 ま)	free Chlo	chlorine re	sidual. on tank vent			कर्मा के स्थाप व्यक्तिक प्रमुख				
		5. The raw water iron content of well #2 is 1.37 mg/L, and the supply is utilizing polyphosphate for iron sequestration.							٠.			
		6	deni appo ladd publ	The elevated tank overflow was installed with a denied permit, the old overflow stub does not appear to be sealed, the ladder does not have ladder guard, the ladder is accessible to the public, and the overflow is not visible due to high grass.								
		7	sam far e the	pling tap, the enough dow well does n	ot have a sr he "faucet" t vnstream for ot have a m ave an airlin	ype tap is r accurate r aster meter	not located eadings,			· · · · · · · · · · · · · · · · · · ·		
	her Comments arding this TAP				s are locate d. No sump			Emergen	∕: `	lone dedica upply repor portable ger	tedly has	